

INTERNATIONAL SEARCH REPORT

International Application No

PCT/BG2004/000003

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H01Q3/04 H01Q3/08 H01Q21/06 H01Q3/26 H01Q3/30

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H01Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 191 734 B1 (LEE SEONG PAL ET AL) 20 February 2001 (2001-02-20) column 7, line 33 - column 9, line 19; figures 1-5	1-50
A	SOON IK JEON ET AL: "Active phased array antenna for mobile multimedia services via satellite" 2000 IEEE AEROSPACE CONFERENCE, vol. 5, 18 March 2000 (2000-03-18), pages 165-170, XP010517164 PISCATAWAY, USA section antenna design	1
A	US 5 210 542 A (PETT TODD A ET AL) 11 May 1993 (1993-05-11) column 4, line 42 - column 9, line 34; figures 2,3	1-50
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☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

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- *O* document referring to an oral disclosure, use, exhibition or other means
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Date of the actual completion of the international search

15 July 2004

Date of mailing of the international search report

27/07/2004

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PCT/BG2004/000003

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 886 336 A (HUGHES ELECTRONICS CORP) 23 December 1998 (1998-12-23) column 3, line 15 - column 4, line 21; figures 1-3 -----	1-50
A	EP 0 301 580 A (SONY CORP) 1 February 1989 (1989-02-01) abstract; figure 21 -----	1-50
A	WO 99/66594 A (FAN HAIJUAN ; XIAO LIMENG (CN); ZHUANG KUNJIE (CN); LIU ZHIJUN (CN)) 23 December 1999 (1999-12-23) abstract; figure 1 -----	1-50

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/BG2004/000003

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 6191734	B1	20-02-2001	KR	2000060658 A	16-10-2000
US 5210542	A	11-05-1993	CA	2071325 A1	04-01-1993
			EP	0521377 A2	07-01-1993
			JP	5218729 A	27-08-1993
EP 0886336	A	23-12-1998	US	5880694 A	09-03-1999
			CA	2240029 A1	18-12-1998
			DE	69818550 D1	06-11-2003
			EP	0886336 A2	23-12-1998
EP 0301580	A	01-02-1989	JP	1034002 A	03-02-1989
			JP	2785825 B2	13-08-1998
			JP	1061105 A	08-03-1989
			JP	2629197 B2	09-07-1997
			JP	1109903 A	26-04-1989
			JP	2551039 B2	06-11-1996
			JP	1155703 A	19-06-1989
			JP	1158808 A	21-06-1989
			JP	1158806 A	21-06-1989
			JP	1160102 A	23-06-1989
			AU	611174 B2	06-06-1991
			AU	1916788 A	02-02-1989
			CA	1311555 C	15-12-1992
			CN	1031159 A , B	15-02-1989
			DE	3889027 D1	19-05-1994
			DE	3889027 T2	21-07-1994
			EP	0301580 A2	01-02-1989
			KR	9702682 B1	08-03-1997
			US	5087920 A	11-02-1992
WO 9966594	A	23-12-1999	CN	2329091 U	14-07-1999
			AU	4255399 A	05-01-2000
			WO	9966594 A1	23-12-1999



датчиците на пространствено движение. Този блок осъществява и управлението на механичното завъртане на въртящата се част, осигурявайки следенето в азимутална равнина.

Приложение на изобретението

Антенната система съгласно изобретението е приложима в случаите, когато е необходима нископрофилна мобилна антена за приемане на спътникови сигнали с различни поляризации върху движеща се платформа. Антенната система може да работи с конвенционален сателитен приемник като управлението ѝ може да става чрез него или отделен управляващ блок. Системата може да предлага всички съвременни услуги, разпространявани чрез геостационарен спътник, включително цифров телевизионен сигнал или друг еквивалентен цифров поток от данни. Високата плътност на редовете осигурява малки ъгли на следене по елевация, което прави системата използвана еднакво успешно в широки географски райони, като например цялата територия на САЩ или Европа.